E872 Stripping Documentation

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Purpose & contents

Purpose of this talk

to document the strip procedure

to bring experimenters up to date on the status of the strip software and hardware

to start an informed discussion on our future stripping goals

Content of this talk

overview of the current strip procedure
  - Strip flowchart & architecture
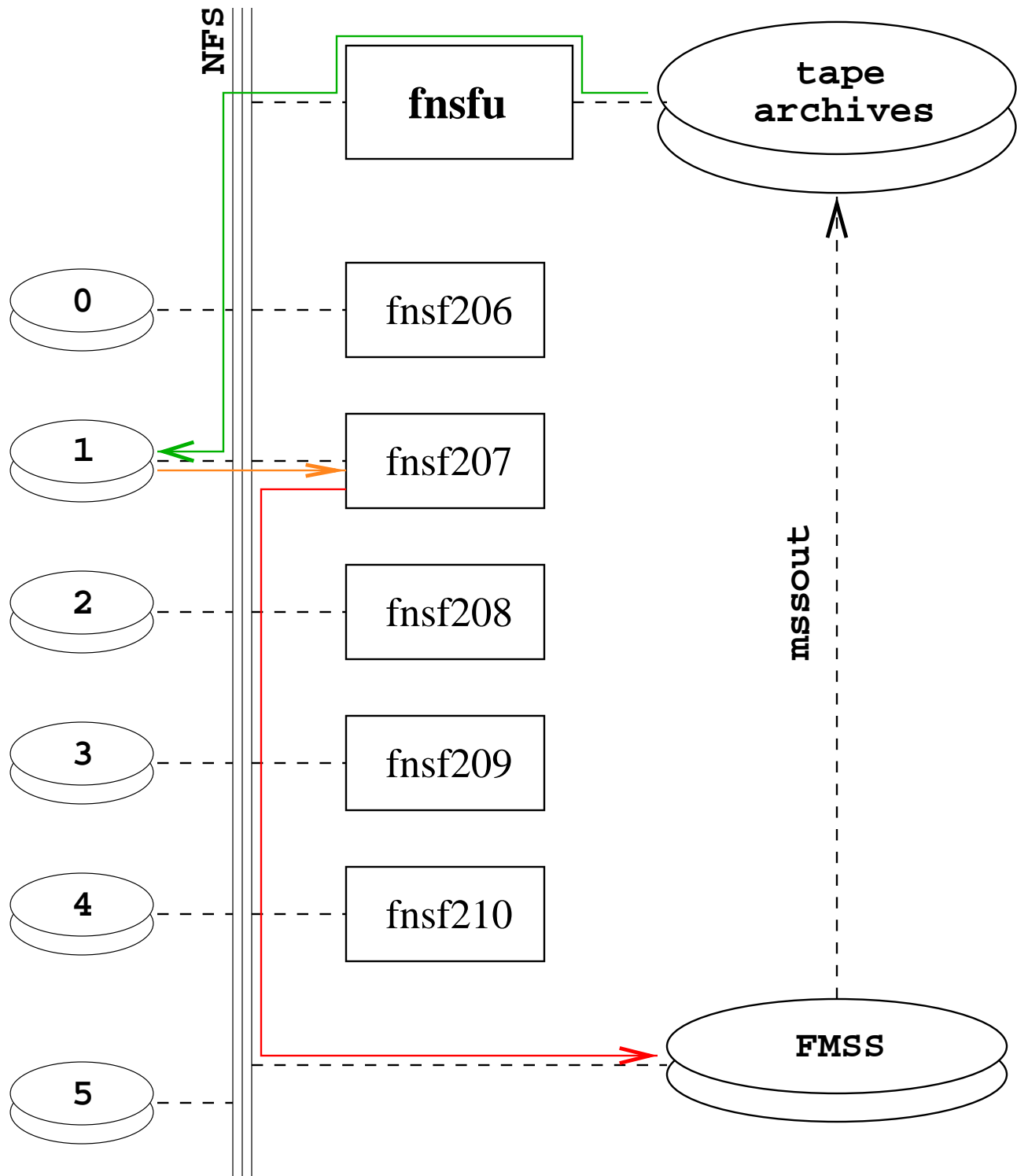 *- Strip hardware status*
  - Strip software status

the current state of stripping

the current state of documentation
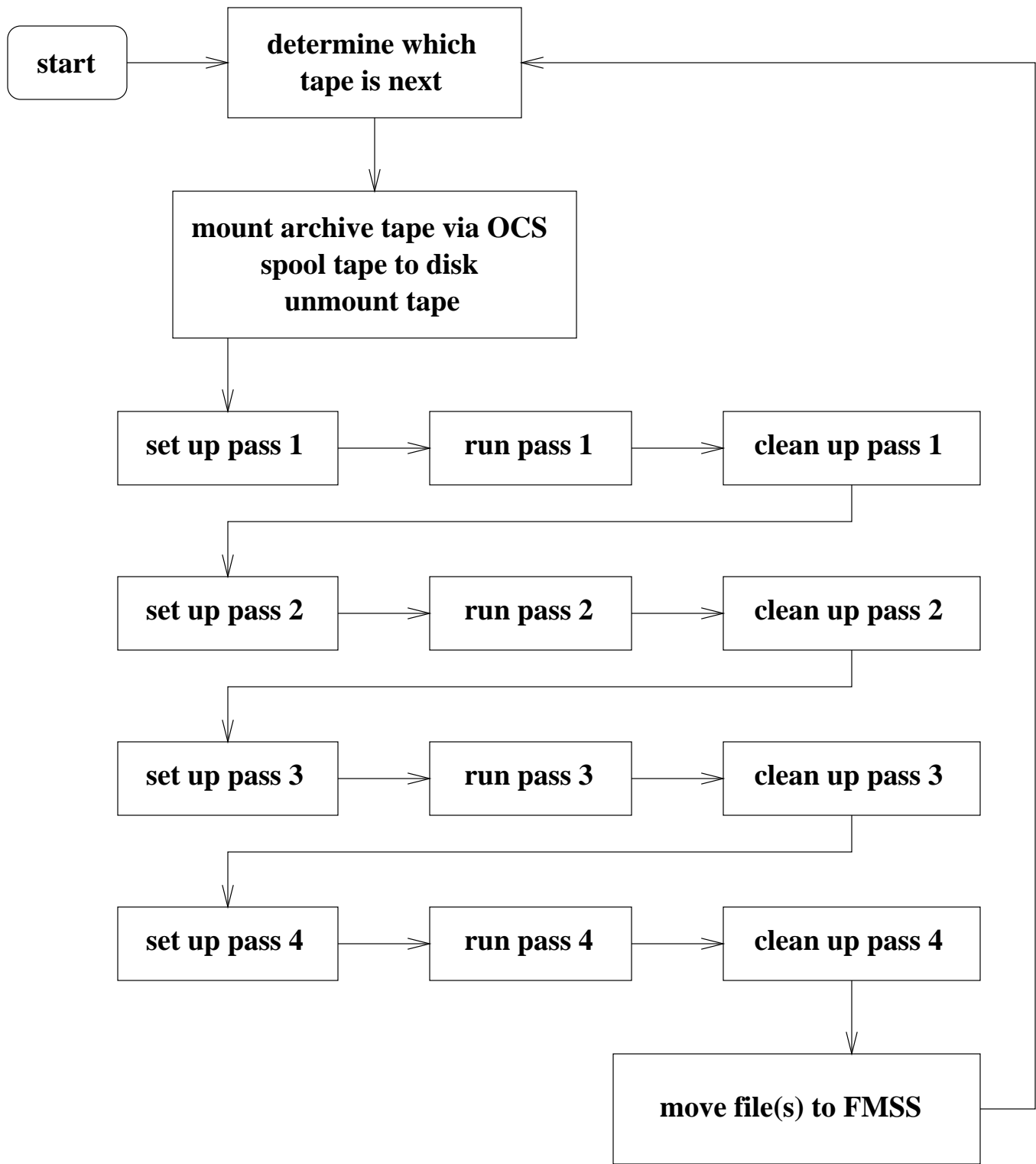
conclusions & outlook

Strip architecture

NFS

fnsfu

tape archives

0 — fnsf206

1 — fnsf207

2 — fnsf208

3 — fnsf209

4 — fnsf210

5

mssout

FMSS

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The strip procedure

```
                                  determine which
   start         ─────▶           tape is next          ◀──────────────────┐
                                        │                                   │
                                        ▼                                   │
                              mount archive tape via OCS                    │
                                 spool tape to disk                         │
                                  unmount tape                              │
                                        │                                   │
                                        ▼                                   │
   set up pass 1    ─────▶   run pass 1    ─────▶   clean up pass 1         │
         ┌──────────────────────────────────────────────┘                  │
         ▼                                                                  │
   set up pass 2    ─────▶   run pass 2    ─────▶   clean up pass 2         │
         ┌──────────────────────────────────────────────┘                  │
         ▼                                                                  │
   set up pass 3    ─────▶   run pass 3    ─────▶   clean up pass 3         │
         ┌──────────────────────────────────────────────┘                  │
         ▼                                                                  │
   set up pass 4    ─────▶   run pass 4    ─────▶   clean up pass 4         │
                                                          │                 │
                                                          ▼                 │
                                              move file(s) to FMSS   ───────┘
```

```
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```

`Strip hardware`

During first strip (until now):

> **Access to 6 farms computers:**
>
> 1 I/O node **`(fnsfu)`**
> 5 worker nodes **`(fnsf206-210)`**
>
> **Access to 6 large disk partitions (~25 Gb total)**
>
> **Access to FMSS and archives for mass storage**

Recent developments:

> **Nodes fnsf206-210 are to be shut down Aug. 31, 1999**
> **Node fnsfu is to remain**
> **FMSS space is to remain**
> **Hard drive partitions are to remain**
>
> **Replacement nodes can be requested...**

Strip software I: binaries

Strip is done via custom "myanal" programs

Source code is available at:

`fsgi02:~e872/prod/strip/`

Binares used in FARMS are at:

`fnsfu:~baller/bin/`

Typical strip procedure:

pass 1 *filter out obvious junk events (creates .pass1.strip file)*

pass 2 *keep only events with nice track, energy, etc. (creates .nustrip file)*

pass 3 *extract interspill events for analysis (.t1t3, .ff, etc.)*

pass 4 *generate calibration histograms (.hbook file)*

Strip software II: scripts

Scripts are written in Perl, expect, and sh.

Scripts are used like "glue" to do tasks that fit the strip job together. For example:

> *handle FARMS tape allocation/deallocation*
> *set filenames in .ctl and .ser files*
> *manage disk space*

Locations of scripts:

> **fnsfu:~baller/bin/**
> **fsgi02:~e872/strip/**

Main organizing script:

> **fsgi02:~e872/strip/e872_strip**

> - *is a "meta"-script*
> - *invokes scripts remotely, in the right order, with the right arguments*
> - *can handle lists of tapes to strip*

The scripts are in disrepair.

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Strip status

1. All runs have been stripped with some version of the strip code.

2. Not all runs have been stripped with the most recent version of the analysis code.

3. Not all runs have been stripped with the most recent versions of the alignment data.

4. Not all runs have had fiducial fiber (.ff) and T1-T3 (.t1t3) events extracted.

5. It is likely that no .nustrip files are missing.

Strip documentation status

Man pages for the following scripts and binaries exist on fnsfu:

```
daftcptape2file(1)
e872_cleanup(1)
e872_fmss(1)
e872_fmsscheck(1)
e872_freetape(1)
e872_get_runno(1)
e872_mount_copy_unmount(1)
e872_strip(1)
e872_stripwrap(1)
```

In addition, the following general documentation is available:

```
documentation in fnsfu:~baller/doc/
```

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Conclusions & outlook

Doing a restrip is feasible:

- software is still available
- hardware can be made available

Pros of restripping

restripping with better code
might improve efficiency

we can replace missing data
and calibration files

Cons of restripping

it's a lot of work

it's not known to be necessary

larger gains are (possibly)
available via other means